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1 RECORD OF ORAL HEARING
2
3 UNITED STATES PATENT AND TRADEMARK OFFICE
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6 BEFORE THE BOARD OF PATENT APPEALS
7 AND INTERFERENCES
8
9

10 *Ex parte* LAURENCE C. MUDGE
11
12

13 Appeal 2010-011847
14 Application 10/849,509
15 Technology Center 1600
16
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18 Oral Hearing Held: November 2, 2010
19
20

21 Before CAROL A. SPIEGEL, DEMETRA J. MILLS and
22 LORA M. GREEN, *Administrative Patent Judges*.
23

24 APPEARANCES:
25
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27 ON BEHALF OF THE APPELLANT:
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1 The above-entitled matter came on for hearing on Tuesday, November 2,
2 2010, commencing at 9:48 a.m., at the U.S. Patent and Trademark Office,
3 600 Dulany Street, Alexandria, Virginia, before Paula Lowery, Notary
4 Public.

5 THE CLERK: Good morning. Calendar Number 3, Appeal No. 2010-
6 011847, Mr. Rady.

7 JUDGE SPIEGEL: Good morning. We're here for oral arguments in
8 Appeal No. 2010-011847, in the matter of ex parte Mudge, Application No.
9 10/849509.

10 If counsel will kindly introduce himself and his guest, he then has 20
11 minutes for argument and may proceed whenever ready.

12 MR. RADY: Good morning, Judges. My name is Arnold Rady. I'm from
13 the law firm of Lerner, David, Littenberg, Krumholz & Mentlik in New
14 Jersey. With me today representing the client is Andrew Prokopetz, which
15 is Bayer Cropscience, the assignee. Also with me is Jay Alexander from the
16 Millbank, Tweed law firm, also counsel for Bayer Cropscience.

17 JUDGE SPIEGEL: Welcome, sirs.

18 MR. RADY: May I proceed?

19 JUDGE SPIEGEL: Please.

20 MR. RADY: I would first like to thank the Board on behalf of Bayer
21 Cropscience for so promptly scheduling this hearing. It is a reissue
22 application that has been pending for five years, having gone through many
23 non-final office actions. I'm glad that we finally, hopefully, will get to a
24 point of resolution.

25 I stand before you to appeal two obviousness rejections. In the view of
26 Appellant, neither is based on a prima facie case of obviousness. I'll get into

1 the point that, first of all, the final rejection -- both of them -- are based on
2 an error in which the Examiner has read part of the Mudge invention into the
3 closest prior art reference.

4 In both final rejections, the Examiner has taken license to ignore at least two
5 claim limitations in all of the patent claims. Also, I will get into the
6 hindsight reconstruction in picking and choosing the prior art with the
7 guidance of the Mudge invention, which to illustrate -- according to the
8 Examiner -- there was a motivation in the prior art to change the color of a
9 commercial fungicide Aliette, which had been on the market for ten years.

10 Although the Appellant does not believe there is any burden to establish
11 unexpectedness, the Examiner has failed to consider the claim limitations
12 and evidence on the subject of unexpectedness.

13 All of the independent composition and method claims on appeal expressly
14 recite three limitations of relevance here. The first is the limitation
15 synergistic fungicidal effects. The second is "enhancing turf quality."

16 As I show later, the Examiner never compared the prior art with the claimed
17 invention as a whole because the Examiner failed to apply the foregoing two
18 limitations, or find in the prior art a disclosure or suggestion of these two
19 limitations.

20 The third limitation that is of pertinence here is the negative limitation that
21 excludes Mancozeb and its family of fungicides that appears at the end of
22 each of the independent claims.

23 Let me begin by discussing the invention and its background. The invention
24 involves thalocyanines, which are compounds known to be colorants. What
25 is surprising about the present invention is that these known colorants have
26 been discovered to impart something very different.

1 When combined with phosphorus acid fungicides, thalocyanines have been
2 found to improve fungicidal effectiveness and turf
3 quality -- that's turf grass quality as seen in the new growth of treated turf
4 grass. By turf grass I'm talking about the grasses that are under special
5 enhancements, such as golf greens.

6 The Lucas 661 patent relied upon in the first office action is the closest prior
7 art. It does illustrate why the present Mudge invention is surprising and
8 unexpected. The Lucas patent describes a fungicidal composition which
9 provides synergistic fungicidal effects when applied to the turf grass.

10 The synergistic composition comprises a composition of two known
11 fungicidal compounds. The first, Mancozeb, again in this broader family of
12 metallic ethylene disbiocarbonate fungicides; and the second being a salt of
13 a monoester of phosphorous acid. The particular one I'll refer to as fosetyl
14 aluminum.

15 The 661 patent describes the synergistic combination of being of these two
16 active ingredients, Mancozeb and fosetyl aluminum. The Lucas 661 patent
17 describes the discovery of Mancozeb and fosetyl aluminum by describing
18 testing in the context of two commercial herbicides at the time, one being
19 Aliette, which contains the fosetyl aluminum, the phosphorus fungicide, and
20 four commercial fungicides which contain Mancozeb.

21 After the Lucas invention, Mr. Mudge began working with Mr. Lucas since
22 Mr. Mudge was working with a company that was making and selling the
23 Aliette fungicide. It is in this later testing that it was discovered that when
24 alternative sources of Mancozeb were combined with Aliette inferior results
25 were obtained.

1 These tests are reported in the Mudge specification beginning at Column 8,
2 Line 30 and in the tables, primarily Tables 1 and 2.

3 From these unexpected results came the discovery that a thalocyanine was
4 present in the Fore product with the Mancozeb, and it was the thalocyanine
5 that was contributing to the superior synergistic fungicidal results.

6 It was unexpected that a compound that was used and known as a colorant
7 would provide this surprising new function. While thalocyanine was present
8 in a commercial product involved in the testing described in the 661 patent,
9 thalocyanine was never mentioned in that patent and never recognized.

10 Therefore, the 661 patent is evidence of the failure of skilled artisans to
11 appreciate the invention here on appeal and supports the unexpected and
12 surprising nature of the discovery of Mr. Mudge.

13 But this takes us to the Examiner's first error. The Examiner reading the
14 Lucas 661 patent for no apparent reason, read it with a disclosure in the
15 present Mudge specification. At page 4 of the Examiner's answer, which is
16 the same as the disclosure at page 2 of the final rejection, the Examiner
17 writes, and I'll quote:

18 "The Lucas, Aliette and Fore formulations comprising the above ingredients
19 realized significant improvements in turf color as compared to other
20 Mancozeb-containing formulations lacking pigment blue 15."

21 The Examiner even cites to Columns 5 and 6 of the Lucas patent. That
22 disclosure isn't there. It doesn't contain it. The only source of Mancozeb in
23 the entire 661 patent is the Fore commercial herbicide.

24 Therefore, the Examiner has created the ultimate hindsight offense of
25 erroneously attributing to the prior art Lucas 661 patent the examples and
26 discoveries set forth in the present Mudge specification.

1 JUDGE MILLS: Doesn't Example 7 of Lucas indicate the turf color and turf
2 quality were superior?

3 MR. RADY: That's a very good question. Now we're back to this question
4 of what is turf enhancement? What is turf quality enhancement?

5 We're now talking about the growth of new grass after the treatment, not the
6 contact of a composition to the standing grass and measuring what's going
7 on with the standing grass.

8 If you look at those examples in the Lucas patent, which follows a protocol
9 of testing similar to what's in Mudge, what you're doing is you're seeing the
10 measurement occurs as much as a week later in looking at the new growth
11 and determining whether the new growth quality and whether that new
12 growth reflects a density of growth and what its natural color is.

13 So the answer is, no, the testing that's reported in the Lucas patent does not
14 reflect simply the coloring of standing grass. It's the new grass that grows
15 after the fact.

16 When we're talking about golf greens, of course, we're talking about greens
17 that are cut twice a week and watered all the time. Of course the coloring
18 would be washed right off or cut right off long before it was even measured
19 under those protocol tests.

20 Not to jump ahead but in the second rejection there's a reliance upon the
21 Kato and Nagashima references, both of which are directed to painting grass.
22 Giving instant relief and instant color. Those references describe not merely
23 putting the color -- spraying it on, which would fall off onto the ground, but
24 rather binding it using a resin that would, basically, glue it on.

25 The first error we see by the Examiner is missing the boat in terms of the
26 Lucas 661 patent, which is important evidence in terms of the

1 unexpectedness of this invention; but also is a reversible error with respect
2 to the first rejection.

3 Let me turn to the issue of no prima facie case of obviousness. There are at
4 least three reasons why there is no prima facie case of obviousness by the
5 Examiner. The first I've already discussed.

6 The Examiner erroneously read into the Lucas 661 patent the very teachings
7 in the Mudge patent specification. This is not only reversible error for the
8 first rejection, but it destroys and taints the second rejection because it failed
9 to appreciate the evidence of the Lucas patent in the art as demonstrating
10 unexpectedness for the Mudge invention.

11 The second reason is that the Examiner has failed to compare the prior art
12 with the claimed invention as a whole. This is a requirement of *Graham v.*
13 *John Deere and KSR*, and it's fundamental to the entire obviousness
14 analysis.

15 The Examiner has failed to consider the claimed invention because he
16 ignored the synergistic fungicidal effectiveness limitation and the enhanced
17 turf grass quality limitation. Limitations present in all of the claims.

18 Appellant's Briefs have cited to the federal circuit case of *Geneva*
19 *Pharmaceuticals, Glaxo*, and an earlier CCPA case at *In Re: Swineheart*,
20 both of which stand for the proposition that the terminology synergistically
21 effective amount in a patent claim is a functional limitation. It, therefore,
22 limits all the embodiments of the claim to those which possess the subject
23 synergistic fungicidal properties.

24 In establishing a prima facie case of obviousness, the Examiner must show
25 that all the limitations in the claims are taught or suggested in the prior art.

26 A case often relied upon by this Board is *In re: Roika*, which held that the

1 obviousness requires a suggestion in the prior art of all the limitations of the
2 claim.

3 The MPEP and cases cited in it, such as In re: Wilson cited in our Brief, are
4 all consistent with that.

5 The Examiner concedes and acknowledges that the claims have these
6 limitations. In the final rejection at page 7 in the Examiner's answer at 15
7 the Examiner states: "Applicant's claims are drawn to a synergistic
8 fungicidal composition. Applicant's claims are drawn to a method of
9 applying said composition to turf grass to combat fungi growth and enhance
10 turf quality."

11 The Examiner admits that is the scope and meaning of the claims.

12 The Examiner goes on to even explain the meaning of synergistic as used in
13 the claim to relate to: "the combined activity of said thalocyanine and
14 fosetyl aluminum or phosphorous compound." That's at the final rejection at
15 8.

16 So as discussed above, according to the prior art, the addition of
17 thalocyanine to a fungicidal composition would be expected to provide color
18 but not any improved fungicidal effect when combined with a phosphorus
19 acid-type fungicide.

20 The closest prior art, the Lucas 661 patent, demonstrates how the
21 thalocyanine was simply not considered to be responsible for synergistic
22 fungicidal effectiveness, even when present with fungicidally active
23 compounds.

24 The Lucas 661 patent teaches the addition of a known fungicidally active
25 compound as the way to improve the effectiveness of a phosphorus acid
26 fungicide.

1 Now, the Examiner provides two reasons why he gave no effect to the
2 synergistic claim limitation. He doesn't challenge it under Section 112. It's
3 not supported by any disclosure problem. He explains, first of all, he
4 couldn't find an example in the Mudge specification of an example of a
5 fosetyl aluminum or a phosphorus fungicide being used in combination with
6 thalocyanine without the presence of Mancozeb. But the Examiner is
7 wrong.

8 The Examiner simply overlooked treatments 6 and 9 in Table 2. Treatment
9 6 is Aliette alone, fosetyl aluminum; and Treatment 9 combines that Aliette
10 with a pigment and shows improvement when the pigment -- by the pigment
11 I'm talking about fosetyl
12 aluminum -- is added.

13 What's described in the examples of the Mudge specification is not the color
14 of the standing grass when the treatment is applied, but rather the
15 unexpected improvement in turf quality and turf color in the new growth of
16 grass observed a number of days after the treatment.

17 The Examiner never addresses these tests. He erroneously finds no tests.
18 What's more, he fails to even consider the importance of other examples in
19 the specifications describing Mancozeb combined with fosetyl aluminum,
20 combined with thalocyanine and showing improvement with the
21 thalocyanine is present.

22 That demonstrates a function. A purpose of thalocyanine which is beyond
23 the prior art teachings. It's not merely a color. It's providing an assistance to
24 the operation of fungicidal effectiveness, and that's part of unexpectedness
25 and part of the proof of expectedness. That's part of the evidence that the
26 Examiner erred in not considering.

1 The second excuse is that the Examiner says, well, the Applicant should
2 have come forward with a comparative showing. There's no basis for such a
3 request because we contend that in the first instance there is not a prima
4 facie case of obviousness to have shifted the burden.

5 Even so there's evidence of unexpectedness, as I've already described. But
6 the Examiner --

7 JUDGE GREEN: Were those other two examples called to the attention of
8 the Examiner? Example 6 and 9?

9 MR. RADY: Yes.

10 JUDGE GREEN: He didn't appear to comment on those. Were they on the
11 Brief?

12 MR. RADY: You're right, Judge. The Examiner made no comment. It was
13 specifically mentioned in a second amended Appeal Brief, and it certainly
14 was laid out very clearly in the Reply Brief discussing both the Mancozeb
15 containing example as well as Treatments 6 and 9. The Examiner had every
16 opportunity to respond to the Reply Brief, to correct even the other errors
17 and chose not to.

18 So it stands unrebutted now on this record. Unchallenged.

19 JUDGE GREEN: Example 6 includes the Mancozeb, correct?

20 MR. RADY: I'm sorry? Treatment 6 only contains Aliette, so there's no
21 Mancozeb there.

22 JUDGE GREEN: There's no second fungicide as required by the claims.

23 MR. RADY: That's correct. So what is excluded by the claims is excluded
24 in treatment 6 as well as Treatment 9. Treatment 9 has to do with a
25 particular thalocyanine pigment, which I believe has the number 10622, with
26 the Aliette. So there is no Mancozeb present, and that's never been

1 questioned in the prior prosecution history or certainly the briefing stage of
2 this appeal.

3 The Appeal Brief challenged the Examiner to identify synergism or even
4 fungicidal properties for thalocyanine taught in the prior art. The Examiner
5 established no such teaching.

6 In fact, in the second obviousness rejection, the Examiner acknowledged
7 that the prior art relied upon in that rejection does not contain any teaching
8 that thalocyanine and phosphorus compound yield synergism. That's in the
9 Examiner's answer at page 17 in the first paragraph.

10 In connection with the first rejection, the Examiner presented a novel
11 argument of inherent synergism as taught in the Lucas 661 patent because of
12 the combination of Fore and Aliette where the Examiner theorizes that
13 thalocyanine must be functioning with a phosphorus compound in that
14 combination to provide synergistic effects, even though the Mancozeb is
15 present.

16 Such an inherency argument is not proper in an obvious rejection because
17 there was no appreciation of this as I've just mentioned. The Lucas patent
18 stands as a complete failure in recognizing thalocyanine doing anything
19 other than a coloring agent. In fact, it didn't even recognize the presence of
20 thalocyanine.

21 The third reason why the Examiner has failed to establish a prima facie case
22 of obviousness is the failure to give credence to the enhanced turf quality
23 limitation of the claim.

24 You'll recall in the second rejection there are two categories of references.
25 One referred to the fungus treatment, fungicides, and existence of fungus in
26 turf grass. The second of the two references, the Kato and Nagashima

1 references, teach the painting of dead, dying, or dormant turf grass with a
2 composition of thalocyanine with a binding resin.

3 The Examiner relies upon this combination of references to provide the
4 claimed improved color of turf grass, but what he's not addressing is the
5 claim limitation. The claim limitation is enhanced turf quality. That's not
6 the grass that's standing at the time of treatment. That's the grass that grows
7 after the treatment. That's the grass that results from the treatment, not
8 simply the painting of it.

9 So here's another illustration of where the Examiner has just ignored the
10 claim limitation and felt that, again, using his own hindsight approach to
11 show an advantage, as he says that one would appreciate painting the grass
12 at the time the fungicide is working, has no basis in the prior art.

13 It fails to address the very important claim limitation of imparting
14 enhancement of the quality of growth after treatment.

15 So even if it can be viewed that the Examiner established a prima facie case
16 of obviousness; and, of course, Appellant denies that that is the case, the
17 Examiner failed to consider all submitted evidence on the obviousness issue
18 and the unexpectedness issue. In failing to consider the correct disclosure in
19 the 661 patent by reading the Mudge disclosure into it, the Examiner failed
20 to consider the work of others, failed to appreciate the fungicidal
21 contribution of thalocyanine. A failure of those working in the art at the
22 time is probative of non-obviousness.

23 Also, the Examiner has failed to consider both the examples in the
24 specification with and without Mancozeb as further evidence of
25 unexpectedness and the benefit and function of thalocyanine in the
26 composition and the method for improving the fungicidal effectiveness.

1 These results in the patent specification confirm that the unexpected
2 properties for the claimed compounds and the methods were not the result of
3 the simple coloring suggestions of the Examiner.

4 The Examiner has not established this on the basis of even combining the
5 references because the combining of those two references in the second
6 rejection we're talking about very different purposes of simply painting the
7 grass at a time when the grass isn't growing to look better, as opposed to
8 providing the fungicidal therapy so what you see looks better is after the
9 treatment of that fungus.

10 The bottom line is that the prior art provides no suggestion to use or
11 incorporate a thalocyanine with a known fungicide for the purpose of
12 improving the fungicidal effects and enhance turf quality. A fundamental
13 aspect, certainly, of the method claims.

14 As indicated in the Collins patent, Aliette has been sold commercially since
15 1981. As shown in the prior art and in the Mudge specification, it was
16 formulated with no colorant.

17 It was only after the Mudge invention that there was a reason and a
18 motivation to add a thalocyanine compound to the active Aliette product.

19 That is now the signature commercial product sold for use on golf greens
20 and other specialty lawns, which is recognized in the record and referred to.

21 In conclusion, we believe that there has not been a prima facie case of
22 obviousness demonstrated by the Examiner because the Examiner has failed
23 to address claim limitations which have never been challenged by the
24 Examiner. The Examiner's excuse for not considering those limitations are
25 without any legal basis.

26 Thank you.

1 JUDGE SPIEGEL: So you would say that a finding that the Examiner has
2 failed to establish any teaching or suggestion that a metal thalocyanine has
3 fungicidal properties would be a sufficient basis on which to reverse the
4 Examiner?

5 MR. RADY: Yes, in view of the claim limitations and all of the evidence
6 that was before the Examiner.

7 JUDGE MILLS: No questions.

8 JUDGE SPIEGEL: Thank you all for coming, and the case is taken under
9 advisement.

10 MR. RADY: Thank you very much.

11 Whereupon, the proceedings at 10:13 a.m. were concluded.

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